CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

COMPLAINT NO. R2-2006-0034

ADMINSTRATIVE CIVIL LIABILITY
IN THE MATTER OF
SANITARY SEWER OVERFLOWS
SANITARY DISTRICT NO. 1
OF
MARIN COUNTY

The Executive Officer of the California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the "Water Board"), hereby gives notice that:

1. The Sanitary District No. 1 of Marin County, also known as the Ross Valley Sanitary District, (hereinafter "Discharger") has violated provisions of law for which the Water Board may impose civil liability pursuant to California Water Code ("CWC") Sections 13385(a)(4) and Section 13323.

2. The Discharger owns a sewage collection system that serves the towns of Ross, San Anselmo, and Fairfax; the City of Larkspur; and the unincorporated areas known as Greenbrae, Kentfield, Kent Woodlands, Oak Manor and Sleepy Hollow. The Discharger's collection system discharges to several pump stations and force mains that convey the flow to the Central Marin Sanitation Agency (CMSA) wastewater treatment plant.

3. The Water Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on January 21, 2004. This updated and consolidated plan represents the Water Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 22, 2004, and October 4, 2004, respectively, and approved by the U.S. Environmental Protection Agency, Region IX on January 5, 2005. The Basin Plan defines beneficial uses and water quality objectives for surface waters in the San Francisco Bay region. Specifically, Discharge Prohibition 15 in Table 4-1 of the Basin Plan states that it shall be prohibited to discharge raw sewage, or any waste failing to meet waste discharge requirements, to any waters of the region.

4. The Discharger violated Discharge Prohibition 15 of the Basin Plan by discharging 472,600 gallons of raw sewage to Corte Madera Creek and Central San Francisco Bay on December 31, 2005, without Waste Discharge Requirements.

5. Unless waived, a hearing on this Complaint will be held before the Water Board on September 13, 2006, at the Elihu M. Harris State Building, First Floor Auditorium, 1515 Clay Street, Oakland. The Discharger or its representative will have an opportunity to be heard and contest the allegations in this Complaint and the imposition of the civil liability. An agenda for the meeting will be mailed to the Discharger not less than 10 days before the hearing date. The deadline to submit all written comments and evidence concerning this Complaint is August 18, 2006, 5 p.m. Any written comments and evidence not so submitted will not be considered by the Water Board.

6. At the hearing, the Water Board will consider whether to affirm, reject, or modify the proposed civil liability, to refer the matter to the Attorney General for recovery of judicial liability, or take other enforcement actions.

ALLEGATIONS

7. This Complaint is based on the following facts:

   a. At 3:51 a.m. on December 31, 2005, during a rainstorm, the Kentfield pump station, which is situated where Stadium Way in Kentfield meets Corte Madera Creek, shut down. Once the station stopped pumping, untreated sewage overflowed into Corte Madera Creek from several manholes along the easement by the Corte Madera Creek and on Stadium Way in Kentfield. The manholes are part of the Discharger's collection system which is comprised of the pipes, pump stations, sewer lines or other conveyances, used to collect and convey wastewater to the CMSA treatment facility. Corte Madera Creek is a tributary of central San Francisco Bay. The Discharger attributes the Kentfield pump station failure to a PG&E electrical brownout and a malfunction of the pumps. (A brownout is a condition where the received power is lower than normal, and in this case, caused the pump station failure.) The Discharger reported an estimated volume of un-recovered sewage overflow at 472,600 gallons which ultimately flowed into Corte Madera Creek and central San Francisco Bay.

   b. The Discharger has a back-up power system when a power failure occurs. In this case, when the electrical brownout occurred, the emergency generator automatically came on-line, but the pumps could not operate due to a false motor over-temperature condition, causing the pumps to automatically shut down. The false motor over-temperature condition occurred because the emergency generator attempted to transfer electrical power to the variable frequency drive (VFD) unit before the capacitors in the VFDs were fully discharged (a process that takes approximately 58 seconds). (VFDs enable pumps to accommodate fluctuating demand, running pumps at lower speeds and drawing less energy while still meeting pumping needs that reduces energy consumption.) When a power failure occurs, the stored energy in the VFDs' capacitors must be fully discharged before the emergency power can be utilized. In this case, the emergency generator came on within 15 seconds of the PG&E power loss and this overwhelmed the VFDs causing the false over-temperature condition.

   c. The Discharger has a land phone line-notification system to alert an on-duty maintenance employee when a pump station goes down. However, for an unknown reason, the phone line failed. Therefore, the pump station failure was not noticed until 4:50 a.m., when a CMSA operator noticed that their computer system indicated a drop in flow from the Discharger's collection system and promptly contacted the Discharger. At 5:15 a.m., the Discharger notified its on-call maintenance worker to respond to the pump failure. Due to street flooding, the on-call worker could not get to the failed pump station. However, a back-up on-call worker finally was able to respond at approximately 7:00 a.m. At that time, the pumps were reset and the pump station came back on-line.

   d. At around 7.00 p.m. on December 31, 2005, the Discharger received a call from a home owner regarding a sewage back-up. The Discharger responded to the complaint within 30 minutes and arrived at the house located at 5 Stadium Way. At that time, all of the storm water had dissipated, and no one was home. On the following day on January 1, 2006, the home owner made a return call and told the Discharger that the back-up had emanated from the bathroom fixtures. At that point, the Discharger called its contracted company to clean up and restore the property at 5 Stadium Way. Having not seen overflowing or standing water in the home at 5 Stadium Way, the

Discharger estimated the volume of this SSO at 960 gallons based on the size of the area affected within the home and reported this SSO to the Water Board on January 4, 2006.

e. The home owner of 5 Stadium Way questioned the 960 gallon estimate and met with the Discharger on February 9, 2006. Subsequently, based on this meeting, the Discharger estimated the SSO volume at 4,600 gallons based on the home owner's calculations and reported this revised SSO volume to the Water Board on February 9, 2006. Additionally, based on the home owner stating that there were manholes overflowing in the surrounding neighborhood on December 31, 2005, the Discharger conducted further investigations of the SSO event. As a result of the additional investigation, the Discharger determined that nine manholes along the easement by Corte Madera Creek and on Stadium Way were overflowing heavily during the storm due to the failed pump station. Although the investigations took place a month after the SSO event, the Discharger determined that nine manholes overflowed based on evidence within the manholes, such as, white grease flecks just below the rim of the manhole cover and toilet paper debris on the manhole ladder rungs. The Discharger estimated that an overflowing manhole during this event discharged approximately 200 gallons per minute based on the City of San Diego's reference sheet estimating sewer spills from overflowing sewer manholes. The Discharger estimated the SSO volume at 351,000 gallons based on nine manholes overflowing at 200 gallons per minute for 3.25 hours, and they reported this revised volume to the Water Board on February 28, 2006.

f. After discussions with Water Board staff in June 2006, the Discharger compared the rim elevations of these nine identified manholes with other nearby manholes on the trunk sewer line and determined that three additional manholes probably overflowed. The Discharger estimates that a total of twelve manholes overflowed, which equates to 468,000 gallons. Additionally, the original estimate did not include the volume that back flowed into the Stadium Way property. Therefore, the Discharger's final estimate of the SSO volume is 472,600 gallons, and it reported this final estimated volume to the Water Board on June 30, 2006.

g. Discharge Prohibition 15 of the Basin Plan states that it shall be prohibited to discharge raw sewage, or any waste failing to meet waste discharge requirements, to any waters of the region.

h. The Discharger discharged 472,600 gallons of diluted raw sewage into Corte Madera Creek and central San Francisco Bay, both waters of the region, on December 31, 2005, in violation of Basin Plan Prohibition 15.

PROPOSED CIVIL LIABILITY

8. CWC Section 13385(a)(4) states that any person who violated any prohibition issued pursuant to CWC Section 13243, such as Basin Plan Prohibition 15, shall be civilly liable in accordance with CWC Section 13385. Under CWC Section 13385(c), for violating CWC Section 13385(a)(4), the Water Board may impose civil liability administratively pursuant to CWC, Chapter 5, Article 2.5 (commencing at Section 13323) in an amount not to exceed the sum of both the following:

   a. $10,000 for each day in which a violation occurred; and

   b. $10 for each gallon of discharge that is not susceptible to cleanup or is not cleaned up in excess of 1,000 gallons.

If this matter is referred to the Attorney General for judicial enforcement, a higher liability of $25,000 per day of violation and $25 per each gallon of discharge that is not susceptible to cleanup or is not cleaned up in excess of 1,000 gallons may be imposed.

The maximum administrative civil liability for the violations is $10,000 times 1 day plus $10 times 472,600 gallons, or $4,736,000.

9. In determining the amount of civil liability to be assessed to against the Discharger, the Water Board must take into consideration the factors described in CWC Section 13385(e). The factors described include:

- the nature, circumstances, extent, and gravity of the violation or violations,
- whether the discharge is susceptible to cleanup or abatement,
- the degree of toxicity of the discharge,
- with respect to the discharger, the ability to pay and the effect on ability to continue in business,
- any voluntary cleanup efforts undertaken,
- any prior history of violations,
- the degree of culpability,
- the economic savings, if any, resulting from the violation, and
- other such matters as justice may require.

CWC Section 13385(e) further states that liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.

Nature, Circumstance, Extent and Gravity of the Violations

Although the Discharger had no control over losing power due to PG&E's electrical brownout, the Discharger's emergency generator would have significantly reduced, or avoided, the discharge. Thus, even though the emergency generator came on-line, it failed because the pumps detected a false motor over-temperature condition, which caused them to automatically shut down. The false motor over-temperature condition occurred because the emergency generator attempted to transfer electrical power to the variable frequency drive (VFD) unit before the capacitors in the VFDs were fully discharged (it takes approximately 58 seconds). The emergency generator came on within 15 seconds of the PG&E power loss which overwhelmed the VFDs causing the false over-temperature condition. Also, the land phone line, if it had been working properly, would have notified the Discharger that the pump station had failed. An operating land phone line would have given the Discharger the opportunity to significantly reduce, or avoid, the discharge.

The Discharger has corrected both these problems. To correct the false condition, the Discharger modified the emergency generator's automatic transfer switch to allow for full capacitor discharge (90 seconds) before allowing the transfer of power from utility to emergency. In addition, the motor temperature relays have been reconfigured to only alarm when sent a signal that is separate from the capacitors in the VFDs. To correct or bypass the land phone line problem, the Discharger installed a cell phone line back-up system.

The storm on December 31, 2005, caused at least three mudslides within the Discharger's jurisdiction as well as local flooding in many areas. As a result, the Discharger was overwhelmed in responding to the effects of these mudslides and floods to the collection system. Because it was busy addressing these other emergencies, the Discharger failed to investigate the possibility of an SSO occurrence from the pump station failure. The Discharger has written sewer overflow response procedures;

however, the procedures are followed as soon as an SSO has been determined. In this case, the Discharger was unaware that SSOs were occurring as nobody reported overflowing manholes to the Discharger on December 31, 2005.

The Discharger did not conduct any water quality monitoring during or immediately after the SSO event as the Discharger was unaware that the SSO occurred until more than a month after the fact. However, on March 3, 2006, the Discharger tested the soil at several locations along the walking trail bordering the eastern side of the flood control channel/Corte Madera Creek where several of the overflowing manholes were located. The soil was tested for the presence of sewage-related bacteria of human origin. All of the tests were negative for human bacteria. Since several rainstorms occurred between December 31, 2005, and the time of the soil testing, which could have washed away the effects of the SSO, the results are inconclusive as to the immediate effects of the SSO to the surrounding environment.

The gravity of the violations associated with the SSO is significant due to its large volume of 472,600 gallons. Also, the discharge did not receive any treatment to protect the beneficial uses of Corte Madera Creek and central San Francisco Bay. The beneficial uses in this receiving water body are particularly important to protect, as Corte Madera Creek is among the few streams flowing to San Francisco Bay that retain a steelhead trout population according to Alice Rich (*Fishery Resources Conditions of the Corte Madera Creek Watershed, Marin County, California*). In addition, U.S.EPA has stated that Corte Madera Creek is one of the creeks in the Bay Area with the greatest diversity of native fish species. Due to the lack of sampling, it is unknown as to what extent the discharge may have impaired the beneficial uses of the receiving water.

Susceptibility of the Discharge to Cleanup or Abatement

The severity of the strong storm event, estimated to be a 50-year storm by the County of Marin, caused flooding which hampered the Discharger's ability to perform cleanup activities. Therefore, even if the Discharger had known that an SSO was occurring, it may not have been able to contain and recover any of the SSO that discharged into Corte Madera Creek, as the high creek flows quickly carried the wastewater away. Thus, the majority of the SSO was not subject to cleanup and abatement. However, the Discharger could have performed some cleanup of the areas surrounding the manholes that overflowed after the SSO ceased.

Degree of Toxicity of Discharge

It is difficult for Water Board staff to assess the direct impacts of the discharge accurately. However, raw sewage, as compared to properly treated wastewater, typically has about ten times the concentrations of biochemical oxygen demand, trash, total suspended solids, oil and grease, ammonia, and thousands of times the levels of bacteria (which is measured in terms of total and fecal coliform) and viruses. These pollutants exert varying levels of impact on water quality, and, as such, may adversely affect beneficial uses of receiving waters to different extents. Some possible adverse effects on water quality and beneficial uses as a result of sewage overflows include:

- Adverse impact to fish and other aquatic biota caused by bio-solid deposition and oil and grease;
- Creation of a localized toxic environment in the water column as a result of the discharge of oxygen-demanding pollutants that lower dissolved oxygen, and elevated ammonia concentration which is a demonstrated fish toxicant at low concentrations; and
- Impairment to water contact recreation and harm to fish and wildlife as a result of elevated bacteria levels including pathogens.

At 472,600 gallons, the Discharger's December 31, 2005, overflow was large, though, because of the storm conditions, it was highly diluted with inflow and infiltration (I & I) and would not pose the same level of toxicity or impact as an equal volume of raw sewage during non-storm conditions. We estimate that the December 31st overflow was about 1/30th of the strength and toxicity as non-storm related overflows. This is based on the Discharger's estimation that 96.8% of the flow was from I & I into the system. The Discharger's estimate is from comparison of sewage flow data from December 2004 (collected at the same time of day) for dry weather flow at a manhole just upstream of the Kentfield pump station and sewage flow at that same manhole during a storm event on December 27, 2004.

Ability to Pay and Ability to Continue Business

In 2005, the Discharger's annual operating budget for sewage collection and treatment was approximately $6.7 million, and it expended approximately $2.1 million in capital improvement projects. Water Board staff considers that the proposed ACL amount will not seriously jeopardize the Discharger's ability to continue operations.

Voluntary Cleanup Efforts Undertaken

Once the Discharger became aware that an SSO occurred at the Stadium Way property, a company was hired to cleanup the damage. Most of the basement was replaced whereby the basement floors were completely removed to the concrete pad and sheetrock was removed in order to scrub the wall studs with wire brushes. The clean up took more than three weeks, whereby a hygienist certified the basement was clean. The cost of the cleanup and restoration of the basement was approximately $50,000.

In addition to this cleanup effort, the Discharger also cleaned up the property at 221 McAllister Avenue. On January 10, 2006, the Discharger received a call from this property owner stating that the SSO at the Stadium Way property overflowed into their backyard and swimming pool and under their house. The Discharger conducted bacterial tests on soil samples that came back positive. However, the tests did not conclusively prove that the SSO from Stadium Way property flowed onto the property on McAllister Avenue as the positive results may have been a result of pet waste as opposed to human waste. In any case, the Discharger assumed responsibility and sent its contracted cleaning service to cleanup the affected areas at an approximate cost of $15,000. No other cleanup activities were performed in conjunction with the effects of the SSO.

Prior History of Violations

The Water Board has not had any previous enforcement action against the Discharger. The Discharger has not had pump station failures since it completed its renovation in September 2004. Before its renovation, the Kentfield pump station was very old and originally was constructed to operate on natural gas and constantly was in need of repairs. Since the rehabilitation, the pump station is now using state-of-the-art technology.

Degree of Culpability

Although the Discharger had no control over losing power to the Kentfield pump station from the PG&E electrical brownout, the Discharger did have a back-up power system. The automatic back-up power system initiated itself, but the pumps failed due to a false motor over-temperature condition, causing the pumps to automatically shut down. The Discharger is responsible for the proper

operation and maintenance of the Kentfield pump station and the sewer collection system that was responsible for the SSO. Thus, the Discharger is culpable for the December 31, 2005, SSO.

Economic Savings

The economic benefit to the Discharger amounts to the interest and/or income earned from capital investments that would have otherwise been spent on the proper management of the collection system to comply with the Basin Plan requirements. However, in this case, the Discharger spent approximately $5 million on the rehabilitation of the Kentfield pump station which was completed in September 2004. Therefore, there was little or no economic benefit in preventing this violation from occurring.

Other Matters as Justice May Require

The Discharger has been cooperative and responsive to concerns raised by Water Board staff about the SSOs and the investigation.

The soils tests conducted on March 3, 2006, cost the Discharger $3,643.

The Water Board adopted Resolution No. R2-2005-0059 that declares support of local programs that inspect and rehabilitate private sewer laterals. The Resolution also states that the Water Board would consider the existence of such programs, especially those experiencing significant infiltration and inflow from private sewer laterals, as an important factor when considering enforcement actions for SSOs. The Discharger does not currently have a program that inspects and rehabilitates private sewer laterals.

Staff time to prepare the Complaint and supporting evidence is estimated to be 80 hours. Based on an average cost to the State of $100 per hour, the total cost is $8,000.

10. Based on the above factors, the Executive Officer proposes civil liability be imposed on the Discharger in the amount of $78,000 for the violations cited above, which includes $8,000 in staff costs, and is due as provided below.

11. This action is an enforcement action and is, therefore, exempt from the California Environmental Quality Act, pursuant to Title 14, California Code of Regulations, Section 15321.

12. The Discharger can waive its right to a hearing to contest the allegations contained in this Complaint by (a) paying the civil liability in full or (b) undertaking an approved supplemental environmental project in an amount not to exceed $62,000 and paying the remainder of the civil liability, all in accordance with the procedures and limitations set forth in the attached waiver.

JUL 14 2006

Date

Bruce H. Wolfe
Executive Officer

Attachment: Waiver of Hearing Form

WAIVER

If you waive your right to a hearing, the matter will be included on the agenda of a Water Board meeting but there will be no hearing on the matter, unless a) the Water Board staff receives significant public comment during the comment period, or b) the Water Board determines it will hold a hearing because it finds that new and significant information has been presented at the meeting that could not have been submitted during the public comment period. If you waive your right to a hearing but the Water Board holds a hearing under either of the above circumstances, you will have a right to testify at the hearing notwithstanding your waiver. Your waiver is due no than August 18, 2006.

☐ Waiver of the right to a hearing and agreement to make payment in full.
By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violations alleged in Complaint No. R2-2006-0034 and to remit the full penalty payment to the State Water Pollution Cleanup and Abatement Account, c/o Regional Water Quality Control Board at 1515 Clay Street, Oakland, CA 94612, within 30 days after the Water Board meeting for which this matter is placed on the agenda. I understand that I am giving up my right to be heard, and to argue against the allegations made by the Executive Officer in this Complaint, and against the imposition of, or the amount of, the civil liability proposed unless the Water Board holds a hearing under either of the circumstances described above. If the Water Board holds such a hearing and imposes a civil liability, such amount shall be due 30 days from the date the Water Board adopts the order imposing the liability.

☐ Waiver of right to a hearing and agree to make payment and undertake an SEP.
By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violations alleged in Complaint No. R2-2006-0034, and to complete a supplemental environmental project (SEP) in lieu of the suspended liability up to $62,000 and paying the balance of the fine to the State Water Pollution Cleanup and Abatement Account (CAA) within 30 days after the Water Board meeting for which this matter is placed on the agenda. The SEP proposal shall be submitted no later than August 18, 2006. I understand that the SEP proposal shall conform to the requirements specified in Section IX of the Water Quality Enforcement Policy, which was adopted by the State Water Resources Control Board on February 19, 2002, and be subject to approval by the Executive Officer. If the SEP proposal, or its revised version, is not acceptable to the Executive Officer, I agree to pay the suspended penalty amount within 30 days of the date of the letter from the Executive Officer rejecting the proposed/revised SEP. I also understand that I am giving up my right to argue against the allegations made by the Executive Officer in the Complaint, and against the imposition of, or the amount of, the civil liability proposed unless the Water Board holds a hearing under either of the circumstances described above. If the Water Board holds such a hearing and imposes a civil liability, such amount shall be due 30 days from the date the Water Board adopts the order imposing the liability. I further agree to satisfactorily complete the approved SEP within a time schedule set by the Executive Officer. I understand failure to adequately complete the approved SEP will require immediate payment of the suspended liability to the CAA.

Name (print)	Signature
Date	Title/Organization